

REMARKS

This response addresses the issues raised by the Examiner in the Office Action mailed February 4, 2004. Initially, Applicants would like to thank the Examiner for the careful consideration given this case. Claims 1-11, 15-17 and 19-20 are presently pending. Claims 1, 2, 5 and 15 have been amended and Claim 18 has been canceled. In view of the above amendments and the following remarks, Applicants submit that the presently pending claims are in condition for allowance and notification of such is respectfully requested.

Rejection Under 35 U.S.C. § 112, Second Paragraph

The Examiner rejects Claims 1-11 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. In particular, the Examiner has pointed out that Claims 1-11 are unclear as to whether the compounds which react with non-ionic reactive groups to produce covalent bonding are the same compounds which form electrostatic bondings with ionic reactive groups. Further, the Examiner states that the preamble in Claims 1-11 and 15-20 state blocking but the active steps do not appear to reflect such an intended use. The active step should be reflected the preamble e.g. thereby blocking the device. Applicants respectfully traverse this rejection.

In order to expedite prosecution, independent Claim 1 has been amended to clarify that compounds which react with non-ionic reactive groups to produce covalent bonding are not the same compounds which form electrostatic bondings with ionic reactive groups. In addition, independent Claims 1 and 15 have been amended to clarify the active step in the preamble. Applicants have replace the term “blocking” with the term “treating”. More specifically, independent Claim 15 has been amended to include a detection device with amino groups on the surface that come into contact with compounds which form electrostatic bondings in conjunction with the amino groups. No new matter has been added by this amendment. Accordingly, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 112, second paragraph.

Rejection Based Bardhan Under 35 U.S.C. § 102 (e)

The Examiner rejects Claims 15-17, 19 and 20 under 35 U.S.C. § 102 (e) as being anticipated by U.S. Patent Application No. 2002/0142339 ("Bardhan et al."). Applicants respectfully traverse this rejection.

The Examiner asserts that Bardhan teaches blocking a detection device of biochemically active molecules. The Examiner also states that Bardhan teaches bringing a solution with succinic anhydride, anionic dendrimers, polyglutamic acid, polyacrylic acid or heparin to a substrate with probe DNA. The Examiner claims that the compound would confer a negative charge to the surface to reduce background signal either by electrostatic or steric repulsion. The Examiner further asserts that Bardhan discloses the cationic layer being bound to porous silica and washing with SSC and SDS. The Examiner then concludes that Bardhan anticipates the present invention.

To establish obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. MPEP § 2143.03. As stated above, Claim 15 has been currently amended to include a process for treating a device for the detection of biochemically active molecules which comprises the steps of bringing in the presence of an aqueous medium a detection device with amino groups on the surface that come into contact with compounds selected from the group consisting of dextran sulfate, mucopolysaccharide having sulfonyl group, taurine having sulfonyl group, polypeptide having carboxyl group, and polysaccharide having carboxyl group which form electrostatic bondings in conjunction with the amino groups and washing the surface of the detection device with aqueous solvent or a water-miscible solvent.

Bardhan teaches a planar, rigid substrate made from porous, inorganic material coated with cationic polymer molecules for attachment of array of biomolecules. See Abstract. Since Bardhan does not disclose that ionic reactive groups are amino groups and compounds which form electrostatic bondings in conjunction with ionic reactive groups, Bardhan does not disclose each and every claim element of the claimed invention. Accordingly, Applicants respectfully request that the rejection under 35 U.S.C. § 102 (e) be reconsidered and withdrawn.

Allowable Subject Matter

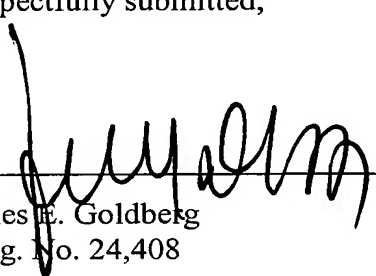
Applicants thank the Examiner for indicating that Claims 1-11 and 18 are free of prior art would be allowable if rewritten to overcome the 35 U.S.C. § 112, second paragraph rejection. Applicants have currently amended independent Claim 1 to include that compounds which react with non-ionic reactive groups to produce covalent bonding are not the same compounds which form electrostatic bondings with ionic reactive groups. Applicants also have currently amended independent Claim 15 to include that the ionic reactive groups are amino groups and compounds which form electrostatic bondings in conjunction with the ionic reactive groups are dextran sulfates. The Examiner concedes that the prior art references alone or in combination fail to teach a process for treating a device for detection of biochemically active molecules by introducing compounds to block by ionic and covalent bonding interaction. Accordingly, these claims and corresponding dependent claims 2-11, 16-17 and 19-20 now stand in condition for allowance.

In view of the remarks presented herein, it is respectfully submitted that the present application is in condition for final allowance and notice to such effect is requested. If the Examiner believes that additional issues need to be resolved before this application can be passed to issue, the undersigned invites the Examiner to contact him at the telephone number provided below.

Respectfully submitted,

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By


Jules E. Goldberg
Reg. No. 24,408

REED SMITH LLP
599 Lexington Avenue
29th Floor
New York, NY 10022-7650
(212) 521-5400

Attorney for Applicant